

**Translation**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>2003P04274WO</b>	<b>FOR FURTHER ACTION</b>	See Form PCT/IPEA/416
International application No. <b>PCT/EP2004/000756</b>	International filing date (day/month/year) <b>28.01.2004</b>	Priority date (day/month/year) <b>30.06.2003</b>
International Patent Classification (IPC) or national classification and IPC		
Applicant <b>SIEMENS AKTIENGESELLSCHAFT</b>		

  

1.	This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2.	This REPORT consists of a total of <b>8</b> sheets, including this cover sheet.
3.	This report is also accompanied by ANNEXES, comprising: <div style="margin-left: 20px;">           a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <b>5</b> sheets, as follows:           <div style="margin-left: 20px;"> <input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).               <div style="margin-left: 20px;"> <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.               </div> </div> </div> <div style="margin-left: 20px;">           b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).         </div>
4.	This report contains indications relating to the following items: <div style="margin-left: 20px;"> <input checked="" type="checkbox"/> Box No. I Basis of the report  <input type="checkbox"/> Box No. II Priority  <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  <input type="checkbox"/> Box No. IV Lack of unity of invention  <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement  <input type="checkbox"/> Box No. VI Certain documents cited  <input type="checkbox"/> Box No. VII Certain defects in the international application  <input type="checkbox"/> Box No. VIII Certain observations on the international application         </div>

  

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

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Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
  - ☐ publication of the international application (Rule 12.4)
  - ☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

- ☐ the international application as originally filed/furnished
- ☒ the description:

pages 1, 2, 5-8 as originally filed/furnished

pages\* 3, 3a, 4 received by this Authority on 27.01.2005 with letter of 27.01.2005

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

- ☒ the claims:
- nos. \_\_\_\_\_ as originally filed/furnished

nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19

nos.\* 1-6 received by this Authority on 27.01.2005 with letter of 27.01.2005

nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

- ☒ the drawings:
- sheets 1/2-2/2 as originally filed/furnished

sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages \_\_\_\_\_

☐ the claims, nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	<u>1-6</u>	YES
	Claims		NO
Inventive step (IS)	Claims	<u>1-6</u>	YES
	Claims		NO
Industrial applicability (IA)	Claims	<u>1-6</u>	YES
	Claims		NO
2. Citations and explanations (Rule 70.7)			
<b><u>Citations</u></b>			
1. This <u>international preliminary report on patentability</u> makes reference to the following documents cited in the <u>international search report</u> :			
<b>D1: XP000968001</b>			
"EFFICIENT POLICIES FOR INCREASING CAPACITY IN BLUETOOTH: AN INDOOR PICO-CELLULAR WIRELESS SYSTEM", MANISH KALIA <i>et alia</i> , IEEE 51 <sup>st</sup> VEHICULAR TECHNOLOGY CONFERENCE PROCEEDINGS VTC 2000-SPRING, TOKYO, JAPAN, MAY 15-18, 2000, pages 907-911			
<b>D2: US2002/0193073</b>			
<b>D3: XP001067139</b>			
"MODEL AND PERFORMANCE EVALUATION OF A PICONET FOR POINT-TO-MULTIPOINT COMMUNICATIONS IN BLUETOOTH", Tae-Jin Lee <i>et alia</i> , IEEE VTS 53 <sup>rd</sup> VEHICULAR TECHNOLOGY CONFERENCE VTC 2001-SPRING, RHODES, GREECE, MAY 6-9, 2001, pages 1144-1148			
<b>A. CLARITY</b>			
1. <b>Claims 1-4:</b>			

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	<p>1.1 Independent <b>claim 1</b>, as well as dependent <b>claims 2-4</b>, meet the requirements of PCT Article 6 for <b>clarity</b>.</p> <p>2. <b>Claims 5 and 6:</b></p> <p>2.1 Dependent <b>claim 5</b>, as well as independent <b>claim 6</b>, do not meet the requirements of PCT Article 6 for <b>clarity</b> for the following reasons:</p> <p>2.1.1 <b>Claim 5:</b></p> <p><b>Claim 5</b> is worded as a claim dependent on "<u>one of the preceding claims</u>", i.e. as dependent on <b>claims 1-4</b>.</p> <p>It contains the terms of "<u>time slot allocation</u>" and "<u>priority criteria</u>". The meaning of these terms can be recognised in <b>claims 2 and 3</b>. These terms are not found in <b>claim 1</b>.</p> <p>Consequently, if dependent on <b>claim 1</b>, the subject matter of <b>claim 5</b> must be regarded as insufficiently <b>clear</b> (PCT Article 6).</p> <p>The same lack of clarity is found in the subject matter of <b>claim 5</b>, if it is dependent only on <b>claim 2</b> or only on <b>claim 3</b>.</p> <p>2.1.2 <b>Claim 6:</b></p> <p>Independent <b>claim 6</b> is directed to a <u>device</u> ("<u>master machine</u>"). Owing to the selected wording of the preamble, however, its features define in their present form only that the <u>master machine is</u></p>

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designed for carrying out a process, but the **means** with which the "master machine" is provided are not clearly indicated.

The category of **claim 6** is thus not unambiguously and clearly formulated; **claim 6** thus fails to meet the requirements of PCT Article 6 for **clarity**.

The following wording would be regarded as sufficiently clear:

- "master machine with means for carrying out the steps of the process as per one of the claims 1-5,..."

**B. Novelty/Inventive step**

1. Novelty and inventive step (PCT Article 33(2) and 33(3)):

1. This international application relates to "a process for operating a short-range wireless transmission/reception system" according to the preamble of independent **claim 1**, as well as to a "master machine for carrying out the process" according to the preamble of independent **claim 6**.

2. In the short-range wireless transmission/reception system according to the invention, data are exchanged in a "piconet" between a "master" and a plurality of "slaves".

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The maximum number of "slaves" which can actively communicate with a "master" (i.e. the total number of machines in a "piconet") is laid down by a short-range wireless communications standard. In addition, the short-range wireless communications standard provides for a "parking mode". A "parked" machine loses its active address but can continue to follow the exchanges in the "piconet".

3. Document **D1**, which is cited in the international search report, is regarded as the prior art closest to the subject matter of independent **claims 1 and 6**. Document **D1** discloses a communication system which operates under the same short-range wireless communications standard as the present invention. The disadvantage of the limited number of actively communicating machines in a "piconet" is overcome in that active machines are continuously switched into the "parking mode" and "parked" machines are continuously switched into the active mode according to particular strategies. According to **D1**, this is done as a function of time, for example, or also as a function of the amount of data queued for transmission at the individual machines.

Documents **D2** and **D3** show similar processes. In those documents, the "parking mode" of the short-range wireless communications standard is also used to support surplus machines and to switch them into the active mode according to particular

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	<p>strategies.</p> <p>4. The disadvantage of all the processes known from documents <b>D1-D3</b> is that an active machine must be switched into the parked mode before a parked machine can be switched into the active mode. This takes time, during which the machine to be switched into the active mode must wait before being switched into the active mode.</p> <p>5. The present <u>international application</u> addresses the <u>technical problem</u> of switching as rapidly as possible, in this type of wireless communications system, the machines to be switched into the active mode, when the number of machines exceeds the maximum number.</p> <p>6. According to the invention, the <u>technical problem</u> is solved by the features of independent <b>claims 1 and 6</b> in that at least one additional machine is switched into the parking mode, besides the minimum number of machines in the parking mode.</p> <p>7. These features of the characterising part of independent <b>claims 1 and 6</b> advantageously permit a machine to be rapidly switched into the active mode, without the need for first switching another machine into the parking mode. This ensures an accelerated execution.</p> <p>8. Since none of the available prior art documents cited in the <u>international search report</u>, either</p>

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alone or in combination, discloses or suggests the features of independent **claims 1 and 6**, **claims 1 and 6** meet the requirements of PCT Article 33(2) and 33(3) for **novelty** and **inventive step**.

9. Dependent **claims 2-5**, which are all either directly or indirectly dependent on **claim 1**, also meet the requirements of PCT Article 33(2) and 33(3) for **novelty** and **inventive step**.